

**IN THE UNITED STATES DISTRICT COURT  
FOR THE DISTRICT OF DELAWARE**

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**IN RE CLASS 8 TRANSMISSION  
INDIRECT PURCHASER ANTITRUST  
LITIGATION**

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) **Civil Action No. 11-cv-00009 (SLR)**  
) **CLASS ACTION**  
)  
)

**DECLARATION OF RUSSELL LAMB**

**Senior Vice President**  
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November 3, 2014

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## I. Introduction

### *Expert Qualifications*

1. My name is Russell L. Lamb. I am a Senior Vice President at Nathan Associates Inc. (“Nathan Associates”) where I direct the litigation consulting activities in the Arlington, VA office. Nathan Associates is a business and economic consulting firm that provides economic research and analysis to clients in the United States and internationally and maintains offices in Arlington, VA; Irvine, CA; London, England and Chennai, India. I have studied the economics of markets and prices for more than 25 years and have consulted on these issues for more than 20 years. I previously have been asked in antitrust class action litigation to opine on a variety of economic issues, including the relevant antitrust product and geographic markets, the existence of cartel behavior in various markets and other questions of liability, damages arising from anticompetitive conduct, and class-wide impact arising from alleged price-fixing and other anticompetitive conduct, as well as class-wide injury arising from allegations of consumer fraud or breach of warranty.

2. I graduated from the University of Tennessee, Knoxville in 1987 (summa cum laude, Phi Beta Kappa) as the top graduate in my class. I earned a Master’s degree in economics from the University of Maryland in 1989 and received a Ph.D. degree in economics from the University of Pennsylvania in 1994. My economic research has been published in peer-reviewed journals such as the *Journal of Econometrics*, *Journal of Development Economics*, *CATO Journal*, and *Regulation*. I have also served as a referee for leading economics journals including the *International Economic Review*, *Journal of Business and Economic Statistics*, *American Journal of Agricultural Economics* and *Contemporary Economic Policy*.

3. Prior to my employment at Nathan Associates, I held various positions in government, academia, and at other consulting firms. From 1994 until 1999 I was an Economist (later Senior Economist) with the Federal Reserve System of the United States in Washington, DC and Kansas City, MO. From 1999 until 2004 I taught economics and agricultural economics at North Carolina State University in Raleigh, NC. I have also been retained as an economic consultant to the World Bank and the Government of Peru, in addition to being retained on a wide range of economic consulting projects in a variety of contexts. I previously have been retained by counsel to calculate economic damages arising from mass tort and antitrust litigation. Courts in the United States and Canada have relied upon my economic analyses of the market in certifying classes of both Direct Purchasers and Indirect Purchasers in litigation involving allegations of anticompetitive conduct; for example, in the *In re: Puerto Rican Cabotage Antitrust Litigation*, *In re: Aftermarket Auto Lighting Products Antitrust Litigation*, *In re: Titanium Dioxide Antitrust Litigation*, *In re: Polyurethane Foam Antitrust Litigation*, *Eugene Allan, et al., v. Realcomp II, Ltd., et al.*, and in *Jabo's Pharmacy, Inc., et al., v. King Pharmaceuticals, Inc.* and in the Canadian LCD litigation.<sup>1</sup> I also teach economics at the George Washington University, where I am an adjunct faculty member in the Department of Economics. A copy of my C.V., including a list of the matters in which I have submitted expert testimony in the past four years, is attached to this report as Appendix A.

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<sup>1</sup> The Canadian LCD litigation is formally: The Fanshawe College of Applied Arts and Technology and LG Philips LCD Co., Ltd, L.G. Philips LCD America, Inc., Samsung Electronics Co. Ltd., Samsung Electronics Canada Inc., Hitachi Ltd., Hitachi Displays, Ltd., Hitachi Canada, Ltd., Hitachi Electronics Devices (USA) Inc., Sharp Corporation, Sharp Electronics Corporation, Sharp Electronics of Canada Ltd., Toshiba Corporation, Toshiba Matsushita Display Technology Co. Ltd., Toshiba America Corporation, Toshiba of Canada Limited, AU Optonics Corporation America, Chi Mei Optoelectronics USA, Inc. Chi Mei Optoelectronics Japan Co. Ltd. And Chunghwa Picture Tubes, Ltd.

4. Nathan Associates is being compensated for my work in this matter at my standard hourly rate of \$550 per hour. Nathan Associates' compensation in this matter is not contingent upon the content of my testimony or the outcome of this litigation.

*Summary of Conclusions in Lamb Direct Purchaser Expert Report*

5. I am the same Russell Lamb that filed an Expert Report ("Lamb Direct Purchaser Expert Report")<sup>2</sup> in the related litigation concerning direct purchasers of Class 8 truck transmissions ("Class 8 Transmissions").<sup>3</sup> In the Lamb Direct Purchaser Expert Report, I concluded that common evidence and methods are available to establish that the alleged anticompetitive conduct artificially inflated the prices paid by all, or nearly all, members of the Direct Purchaser Class<sup>4</sup> above the level that would have prevailed but for the alleged anticompetitive conduct. That is, there is common evidence available that demonstrates that all, or nearly all, members of the Direct Purchaser Class were overcharged as a result of the alleged anticompetitive conduct. I based that conclusion on the following conclusions:

- a. Evidence, common to the Direct Purchaser Class as a whole, demonstrates that Eaton possessed monopoly power in the Class 8 Linehaul and Performance transmission ("Class 8 Linehaul Transmissions" and "Class 8 Performance Transmissions," respectively) markets. As a result, Eaton

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<sup>2</sup> Expert Report of Russell Lamb, dated November 3, 2014 (hereafter "Lamb Direct Purchaser Expert Report").

<sup>3</sup> I incorporate by reference the Lamb Direct Purchaser Expert Report throughout this Declaration.

<sup>4</sup> Lamb Direct Purchaser Expert Report at ¶12. I understand the Direct Purchaser Class is defined as follows: "All persons or entities in the United States that purchased vehicles that contain Eaton Class 8 Linehaul and Performance Transmissions directly from Defendants (the 'Class'), beginning October 1, 2002 and continuing until the present (the 'Class Period'). Specifically excluded from this Class are Defendants and their parent companies, subsidiaries, affiliates, officers, directors, employees, legal representatives, heirs or assigns, and co-conspirators. Also excluded are any federal governmental entities, any judicial officers presiding over this action and the members of his/her immediate family and judicial staff, and any juror assigned to this action." Lamb Direct Purchaser Expert Report at ¶7. Further, as I discussed in the Lamb Direct Purchaser Expert Report, I understand from Counsel for the Direct Purchaser Plaintiffs that the Class definition in the Direct Purchaser Complaint will be modified to also include all persons or entities in the United States that purchased vehicles that contain Eaton Class 8 Performance Transmissions. See Lamb Direct Purchaser Expert Report at footnote 9.

was able to charge supra-competitive prices for the Class 8 Linehaul and Performance Transmissions it sold to the OEM Defendants.<sup>5</sup>

- b. Evidence, common to the Direct Purchaser Class as a whole, shows that Eaton and each OEM Defendant entered into one or more long-term agreements (“LTAs”) that limited price competition, allowed Eaton to exercise monopoly power, and effectively foreclosed a substantial share of the market for Class 8 Linehaul and Performance Transmissions. Restrictive terms contained in one or more of the LTAs include the following:
  - i. Rebates and price reductions conditioned on OEMs purchasing a high percentage, usually 90 percent or more, of their Class 8 Transmissions needs from Eaton;
  - ii. Exclusive placement of Eaton’s Class 8 Transmissions in OEM data books, and Eaton’s transmission placement as the “preferred” or “standard” product option in the OEM Defendants’ data book listings; and
  - iii. Preferential pricing of Eaton Class 8 Transmissions against competitors’ comparable transmissions, meaning competitor transmissions had to be priced higher than Eaton’s transmissions.<sup>6</sup>
- c. Evidence, common to the Direct Purchaser Class, shows that Meritor would have entered the Class 8 Performance Transmission Market but for the misconduct.<sup>7</sup>
- d. Evidence, common to the Direct Purchaser Class as a whole, shows that Eaton Class 8 Transmission prices were artificially inflated as a result of the alleged misconduct.<sup>8</sup>

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<sup>5</sup> Lamb Direct Purchaser Expert Report at ¶¶13(a), 45-67.

<sup>6</sup> Lamb Direct Purchaser Expert Report at ¶¶13(b), 72, 75, 77, 79, 84, 91-92, 96-97.

<sup>7</sup> Lamb Direct Purchaser Expert Report at ¶¶13(c), 124-130.

- e. Evidence, common to the Direct Purchaser Class as a whole, demonstrates that the Class 8 Truck market was concentrated in the hands of the OEM Defendants. Further, there was no competitive fringe that could have supplied Class 8 Trucks containing non-Eaton Class 8 Transmissions for Class members to avoid the artificially-inflated prices.<sup>9</sup>
- f. I also developed a multiple regression analysis, which is common to the Direct Purchaser Class as a whole, which confirms that prices for Eaton Class 8 Linehaul Transmissions were artificially inflated above the prices that would have prevailed but for the alleged misconduct. The results of my multiple regression analysis, especially the overcharge I calculated, reflect the artificial inflation of prices above what they would have been but for the alleged misconduct. This regression can also be used to quantify the overcharge resulting from the exclusion of Meritor from the Class 8 Performance Transmission market.<sup>10</sup>
- g. Evidence, common to the Direct Purchaser Class as a whole, establishes that the OEM Defendants passed through at least some portion of the higher costs for Eaton Class 8 Transmission costs to the Direct Purchaser Class.<sup>11</sup>
- h. My multiple regression analysis of pass through, which is common to the Direct Purchaser Class as a whole, confirms that the OEM Defendants passed through at least some portion of the artificially-inflated prices for Eaton Class 8 Transmissions that resulted from the alleged anticompetitive conduct to Direct Purchaser Class members.<sup>12</sup>

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<sup>8</sup> Lamb Direct Purchaser Expert Report at ¶¶13(d), 13(f), 103-123, 133.

<sup>9</sup> Lamb Direct Purchaser Expert Report at ¶¶13(e), 134-137.

<sup>10</sup> Lamb Direct Purchaser Expert Report at ¶¶13(f), 133, 184-190.

<sup>11</sup> Lamb Direct Purchaser Expert Report at ¶¶13(g), 138-161.

<sup>12</sup> Lamb Direct Purchaser Expert Report at ¶¶13(h), 162-163.

6. In the Lamb Direct Purchaser Expert Report, I also concluded that a formulaic method based on standard econometric techniques is available to measure overcharges suffered by Direct Purchaser Class members as a result of the alleged anticompetitive conduct on a class-wide basis without resorting to individualized inquiry. As I explained in more detail in the Lamb Direct Purchaser Expert Report, multiple regression analysis can be used to measure the amount by which Direct Purchasers were overcharged by purchasing Class 8 trucks containing Eaton Class 8 Transmissions.<sup>13</sup> Furthermore, in the Lamb Direct Purchaser Expert Report, using multiple regression analysis, I estimated that the damages paid by Direct Purchaser Class members from October 1, 2002 to March 31, 2010 (the period for which Eaton and the OEM Defendants produced transaction-level sales data) (“Damages Period 1”) total \$249,250,055.<sup>14</sup> Additionally, I estimated that damages paid by Direct Purchaser Class members from October 1, 2002 to July 31, 2014 (using projected sales for the period April 1, 2010 to July 31, 2014) (“Damages Period 2”) total \$398,437,880.<sup>15</sup>

### *Summary of Allegations*

7. I understand that the Plaintiffs in this matter purchased, in the United States, Class 8 Transmissions (described below) indirectly from one of the Defendants during the proposed Class Period (collectively “Indirect Purchaser Plaintiffs”).<sup>16</sup> Defendant Eaton Corp. (“Eaton”) manufactured, marketed and indirectly sold Class 8 Transmissions in the United States during the period October 1, 2002 to the present (“Class Period”).<sup>17</sup> I understand that Defendants Daimler Trucks North America LLC (“Daimler Trucks”); Freightliner LLC (“Freightliner”);

<sup>13</sup> Lamb Direct Purchaser Expert Report at ¶¶164-169.

<sup>14</sup> Lamb Direct Purchaser Expert Report at ¶210, Table 4.

<sup>15</sup> Lamb Direct Purchaser Expert Report at ¶212, Table 5.

<sup>16</sup> See United States District Court for the District of Delaware, *In Re Class 8 Transmission Indirect Purchaser Antitrust Litigation*, Civil Action No. 11-cv-00009 (SLR), Third Amended Class Action Complaint, filed January 15, 2013 (hereafter “Complaint”) at ¶¶9-18.

<sup>17</sup> Complaint at ¶¶19, 154.



Navistar International Corp. (“Navistar”); International Truck and Engine Corp. (“International”); PACCAR Inc. (“PACCAR”); Kenworth Truck Co. (“Kenworth”); Peterbilt Motors Co. (“Peterbilt”); Volvo Trucks North America (“Volvo”); and Mack Trucks, Inc. (“Mack”) are Original Equipment Manufacturers (“OEMs”) of Class 8 trucks in the United States and marketed and indirectly sold Class 8 trucks containing Class 8 Transmissions (collectively the “OEM Defendants”).<sup>18</sup>

8. I understand that Plaintiffs allege that the OEM Defendants and Eaton (collectively “Defendants”) conspired “to maintain and enhance the monopoly power of Eaton in the Class 8 Truck Transmissions Market” during the Class Period.<sup>19</sup> Plaintiffs also allege that “Defendants accomplished this goal through the implementation of a series of exclusive dealing arrangements among and between Eaton and the OEM Defendants.”<sup>20</sup> Plaintiffs allege that the Defendants’ conspiracy effectively foreclosed competition in the market for Class 8 Transmissions.<sup>21</sup>

9. I understand from counsel for the Indirect Purchaser Plaintiffs that the “Indirect Purchaser Class” consist of classes of purchasers in California, Florida, Iowa, Kansas, Michigan, Minnesota, Nebraska, North Carolina, Tennessee, Vermont, and Wisconsin (the “Indirect Purchaser States”).<sup>22</sup> Each state’s class definition contains substantively identical languages follows:

All persons or entities, in the state of [the Indirect Purchaser State], that indirectly purchased from Defendants new Class 8 Heavy Duty trucks containing Eaton transmissions, beginning October 1, 2002 and continuing until the present (“Class Period”). Excluded from this class are: (i) Defendants and their parent companies,

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<sup>18</sup> Complaint at ¶¶1, 20-27.

<sup>19</sup> Complaint at ¶1.

<sup>20</sup> Complaint at ¶2. Plaintiffs also allege that the “conspiracy (or conspiracies) between and among Eaton and the OEMs were designed so that the OEMs would qualify for rebates, and thus share in the monopoly rents, provided they diverted both current and future purchasers of competing transmissions to Eaton.” Complaint at ¶119.

<sup>21</sup> Complaint at ¶¶2-3.

<sup>22</sup> I understand that two plaintiffs (Premier Produce and Joseph Williams) have sought to withdraw from the action, but two other proposed representatives (T.C. Construction Co. and Phillip Nix) are seeking to replace them.

subsidiaries, affiliates, officers, directors, employees, legal representatives, heirs, assigns, and co-conspirators; and (ii) any judges presiding over this action and the members of his/her immediate family and judicial staff, and any juror assigned to this action.

10. For the purposes of my analysis, I refer to those entities that purchased Class 8 trucks containing Eaton Class 8 Linehaul or Performance Transmissions (“Relevant Class 8 Trucks”) directly from one of the Defendants in this matter as “Direct Purchaser Dealers” throughout the remainder of this Declaration.

*Assignment*

11. I have been asked by Counsel for the Indirect Purchaser Plaintiffs to analyze the following questions based on the record evidence as well as my training and experience in economics:

- a. Whether it is possible to establish, using economic analyses and evidence common to the Indirect Purchaser Class as a whole, that Indirect Purchaser Class members were impacted by the alleged anticompetitive conduct, and more specifically, whether all, or nearly all, Indirect Purchaser Class members would have paid an overcharge on their purchases of Relevant Class 8 Trucks as a result of the alleged misconduct; and
- b. Whether a standard and reliable economic methodology exists that would allow me to measure damages suffered by Indirect Purchaser Class members as a result of the alleged anticompetitive conduct on a class-wide basis without resorting to individualized inquiry.

12. For the purposes of analyzing these issues, I have assumed that the Defendants conspired to “maintain and enhance the monopoly power of Eaton in the Class 8 Truck Transmissions

Market during the period from October 1, 2002 to the present.”<sup>23</sup> I have also assumed that the trier of fact will determine that the challenged conduct represents a violation of the antitrust laws.<sup>24</sup> I have not, however, assumed that all members of the Indirect Purchaser Class were injured, and suffered damages, as a result of the alleged anticompetitive conduct. Rather, the analysis of those issues is the focus of this Declaration.

### *Materials Reviewed*

13. In performing my analyses, I have undertaken economic research based on publicly available documents as well as materials produced as part of this litigation, in order to understand the markets for Class 8 Transmissions and Relevant Class 8 Trucks, as well as the prices paid for these products by members of the Indirect Purchaser Class. I have also conducted economic and statistical analyses of prices using data provided by third-party entities connected to this litigation. In addition, I have reviewed documents and data produced and testimony provided by the various parties in this matter and in the ZF Meritor Action. A complete list of the materials I have relied upon in forming my opinions is contained in Appendix B.

### *Conclusions*

14. As I previously discussed, in the Lamb Direct Purchaser Expert Report, I concluded, based on my economic analyses and research into the markets for Class 8 Transmissions and Relevant Class 8 Trucks, the documents and data produced and testimony provided by the parties

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<sup>23</sup> Complaint at ¶1.

<sup>24</sup> On October 30, 2009 a federal jury determined that Eaton’s long term-agreements with the OEM Defendants violated Section 1 and Section 2 of the Sherman Act, and Section 3 of the Clayton Act, United States District Court for the District of Delaware, *ZF Meritor LLC and Meritor Transmission Corporation v. Eaton Corporation*, Civil Action No. 06-623-SLR (“ZF Meritor Action”). I understand that the District Court concluded that “there was sufficient evidence in the record to establish that Eaton engaged in anticompetitive conduct—specifically that Eaton entered into long-term *de facto* exclusive dealing arrangements—which foreclosed a substantial share of the market and, as a result, harmed competition.” See, United States Court of Appeals for the Third Circuit, *ZF Meritor LLC; Meritor Transmission Corporation v. Eaton Corporation* (Nos. 11-3301 and 11-3426), Opinion of the Court, filed September 28, 2012 (“ZF Meritor Appeal Opinion”). I also understand that on September 28, 2012 the verdict in the ZF Meritor Action was affirmed on appeal. See, ZF Meritor Appeal Opinion.

and third parties in this matter that I have reviewed to date, as well as my training and experience in economics and econometrics, that common evidence and methods are available to establish that the alleged anticompetitive conduct artificially inflated the prices paid by all, or nearly all, Direct Purchasers of Eaton Class 8 Transmissions above the level that would have prevailed but for the alleged anticompetitive conduct.<sup>25</sup> That is, there is common evidence available that demonstrates that all, or nearly all, Direct Purchasers were overcharged as a result of the alleged anticompetitive conduct.

15. I have also concluded that class-wide evidence is available to demonstrate that all, or nearly all, members of the Indirect Purchaser Class would have been injured because they would have had some portion of the artificially-inflated prices paid by Direct Purchaser Dealers that resulted from the alleged anticompetitive conduct passed through to them. I based this conclusion on the conclusions I reached in the Lamb Direct Purchaser Expert Report,<sup>26</sup> in addition to the following:

- a. Evidence common to the Indirect Purchaser Class as a whole is available to establish that Direct Purchaser Dealers passed on some portion of increased costs, including Eaton Class 8 Transmission costs, through to their customers, such as members of the Indirect Purchaser Class.
- b. Common evidence in the form of a multiple regression analysis confirms that some portion of the artificially-inflated prices for Eaton Class 8 Transmissions that resulted from the alleged anticompetitive conduct were passed through to members of the Indirect Purchaser Class. The results of this multiple regression analysis may be used to calculate the amount by

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<sup>25</sup> Lamb Direct Purchaser Expert Report at ¶¶12, 157-161.

<sup>26</sup> Lamb Direct Purchaser Expert Report at ¶¶12-15.

which Indirect Purchaser Class members were overcharged by the alleged misconduct. Further, this analysis is common to Indirect Purchaser Class members rather than specific to individual Indirect Purchaser Class members.

16. I have also determined that there is a formulaic method based on standard econometric techniques available to measure overcharges suffered by Indirect Purchaser Class members as a result of the alleged anticompetitive conduct on a class-wide basis without resorting to individualized inquiry. As I explain in more detail below, multiple regression analysis can be used to measure the damages suffered by Indirect Purchaser Class members, that is, the amount of the overcharge paid by Direct Purchaser Dealers that was passed through to Indirect Purchaser Class members.

## **II. Injury to Indirect Purchaser Class Members**

*Common evidence demonstrates that Direct Purchasers were injured*

17. As I discussed above and in the Lamb Direct Purchaser Expert Report, evidence, common to the Direct Purchaser Class as a whole, demonstrates that Direct Purchasers (including Direct Purchaser Dealers) were injured by the Defendants' alleged misconduct in that they paid more for Relevant Class 8 Trucks than they otherwise would have in the absence of the alleged misconduct.<sup>27</sup> This common evidence includes Eaton's monopoly power in the Class 8 Linehaul and Performance Transmission product markets; Eaton's and the OEM Defendants' entry into LTAs that limited price competition and effectively foreclosed a substantial share of the market for Class 8 Linehaul Transmissions; the likelihood that but for the Defendants' alleged misconduct, Meritor would have entered the market for Class 8 Performance Transmissions; the results of my Eaton Regression, especially the overcharge I calculated,

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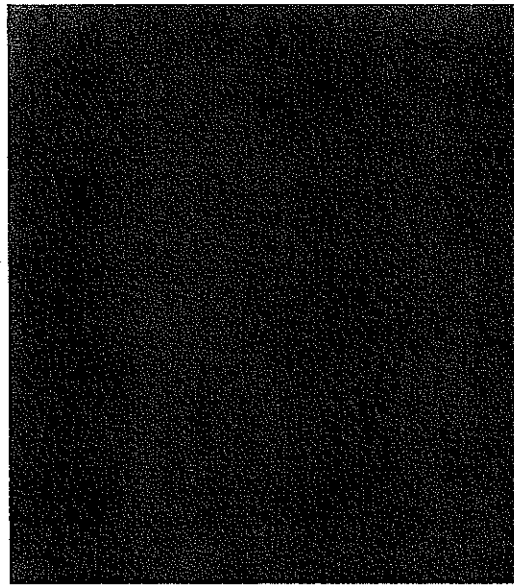
<sup>27</sup> Lamb Direct Purchaser Expert Report at ¶27.

reflecting that prices for Eaton Transmissions were priced higher than they would have been but for the alleged misconduct; the fact that the market for Class 8 trucks is concentrated in the hands of the OEM Defendants; the common evidence establishing that the OEM Defendants passed on some portion of increased costs, including Eaton Class 8 Transmission costs, through to Direct Purchasers; and the results of my Direct Purchaser Regression, which confirm that some portion of the artificially-inflated prices for Eaton Class 8 Transmissions that resulted from the alleged misconduct were passed through from the OEMs to Direct Purchaser Class members. Taken together, this evidence, which is common to the Direct Purchaser Class, demonstrates that Direct Purchasers were injured because they paid more for Eaton Class 8 Transmissions as a result of the alleged misconduct than they otherwise would have paid. In the absence of the alleged misconduct, prices paid by all, or nearly all, Direct Purchasers of Eaton Class 8 Linehaul and Performance Transmissions would have been lower, and thus, the alleged anticompetitive conduct artificially inflated prices paid by Direct Purchasers.

18. Table 1 below summarizes the sales of Relevant Class 8 Trucks by Indirect Purchaser state during a large portion of the proposed Class Period.<sup>28</sup>

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<sup>28</sup> Excluded from Table 1 are sales to national accounts, Defendant-owned dealers, intra-Defendant sales, foreign sales, and sales with invoice amounts less than \$1.



*Common evidence demonstrates that some portion of the artificially-inflated prices paid by Direct Purchaser Dealers was passed through to Indirect Purchaser Class members*

19. The conclusion that Direct Purchasers (including Direct Purchaser Dealers) were injured by the Defendants' alleged misconduct in that they paid more for Relevant Class 8 Trucks than they otherwise would have in the absence of the alleged misconduct is the first step in establishing that Indirect Purchaser Class members were injured. In order to establish injury to the Indirect Purchaser Class, I must also demonstrate that at least some portion of these higher prices would have been passed on to Indirect Purchaser Class members. I analyze that question here. Based on my review of the materials in this litigation, including data on prices for the Relevant Class 8 Trucks produced by certain third parties, I have established that there is evidence, common to the Indirect Purchaser Class as a whole, which may be used at trial to show that some portion of the artificially-inflated prices paid by Direct Purchaser Dealers was passed through to Indirect Purchaser Class members. This class-wide evidence includes the workably competitive nature of the Relevant Class 8 Truck industry; the low margins Direct Purchaser Dealers earned on sales of Relevant Class 8 Trucks; evidence that Direct Purchaser Dealers routinely passed cost increases on to end customers; and the Defendants' own acknowledgment

that increased prices associated with the alleged misconduct would have been passed through to Indirect Purchaser Class members. I discuss these factors in more detail below. In addition, I have implemented, on a preliminary basis, a multiple regression analysis which is capable of demonstrating that at least some portion of the artificially-inflated prices paid by Direct Purchaser Dealers was passed on to Indirect Purchaser Class members. I discuss the implementation of this multiple regression analysis later in this Declaration.

20. As I previously discussed, in order for members of the Indirect Purchaser Class to have been injured by the alleged misconduct, at least some portion of the overcharge would have to have been passed on to them by Direct Purchaser Dealers of Eaton Class 8 Trucks. In this section, I consider the class-wide evidence which is available and which establishes that Indirect Purchaser Class members would have been injured in that they would have paid higher prices for the Relevant Class 8 Trucks they purchased because some portion of the overcharge would have been passed through to them.

21. The economic theory of the passing on of price increases to indirect purchasers is well established in economic research. In fact, one academic journal article concludes that “passing on monopoly overcharges is not the exception: it is the rule.”<sup>29</sup> Another journal article discusses the use of “incidence theory” to calculate “the theoretical percentage of any overcharge that a firm at one level [of the distribution chain] can pass-on to a firm at the next level.”<sup>30</sup>

Determining the amount of an overcharge being passed through to indirect purchasers along a

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<sup>29</sup> Robert Harris and Lawrence Sullivan, “Passing on the Monopoly Overcharge: A Comprehensive Policy Analysis,” *University of Pennsylvania Law Review*, Vol. 128, No. 2 (December 1979): 269-360 (hereafter “Harris and Sullivan”), p. 276.

<sup>30</sup> John Cirace, “Apportioning Damages between Direct and Indirect Purchasers in consolidated Antitrust Suits: ARC America Unravels the Illinois Brick Rule,” *Villanova Law Review*, Vol. 35, No. 2, 1990 (hereafter “Cirace”), pp. 311-317. Incidence theory involves determining if a tax imposed at a particular level of a distribution channel can be passed through to indirect purchasers along the distribution channel and ultimately to consumers. For additional discussion of incidence theory as it pertains to price increases passed through to indirect purchasers, see Robert Pindyck and Daniel Rubinfeld, *Microeconomics*, Seventh Edition, Pearson Prentice Hall, 2009 (hereafter “Pindyck and Rubinfeld”), pp. 326-328.



distribution channel may be accomplished using information regarding the elasticity of supply (a manufacturer's willingness to supply a product at a given price) and the elasticity of demand (a consumer's willingness to purchase a product at a given price) for a given product (in this case, Relevant Class 8 Trucks).<sup>31</sup>

22. When demand for a given product is completely elastic (i.e. an increase in price of said product would lead to a 100 percent decrease in quantity sold), then no portion of a price increase can be passed through to consumers.<sup>32</sup> However, according to one peer-reviewed research article, this circumstance represents an "extreme case" that "rarely occur[s]."<sup>33</sup> The "more likely" case is when a products' (such as Relevant Class 8 Trucks) supply and demand are neither "completely elastic [n]or inelastic at any of the production or distribution levels."<sup>34</sup> When this is the case, some percentage of a price increase (overcharge) is passed through to the next purchaser of the product in question.

23. Furthermore, research indicates that there are no economic substitutes for the Relevant Class 8 Trucks purchased by Direct Purchaser Dealers. For instance, according to a presentation at the Federal Reserve Bank of Chicago's Automotive Outlook Symposium, "[t]here is no substitute for Class 8 trucks and tractors in getting the freight to the market."<sup>35</sup> Another market presentation covering Class 8 trucks states as an "Axiom" that there "is no substitute transportation mode for heavy trucks and tractor-trailers."<sup>36</sup> In addition, a 2009 Business Insider trade press article notes that Class 8 trucks "enjoy relatively inelastic long-run demand, so any

<sup>31</sup> Cirace, pp. 311-312; Pindyck and Rubinfeld, pp. 32, 35.

<sup>32</sup> Cirace, p. 314. The opposite extreme is when demand for a given product is completely inelastic (i.e. an increase in price of said product would not lead to any loss in sales). In this case, the entirety of the price increase may be passed through to consumers. See Cirace, pp. 312-313.

<sup>33</sup> Cirace, p. 314.

<sup>34</sup> Cirace, p. 314.

<sup>35</sup> Kenny Vieth, "An Overview of Commercial Vehicle Demand in the NA Market," ACT Research, June 4, 2010, p. 2.

<sup>36</sup> Steve Tam, "Energy Use and Policy in the U.S. Trucking Sector – State of the Trucking Industry," ACT Research, October 10, 2012, pp. 2-3.

reduction in demand should be short term.”<sup>37</sup> Given this, economic theory indicates that the demand for Relevant Class 8 Trucks would be relatively inelastic.<sup>38</sup> This is because in the event of a price increase, purchasers of Class 8 trucks would have no substitute products to which they could switch, and thus no alternative but to purchase the higher-priced trucks. As a result, Direct Purchaser Dealers would be able to pass through higher costs, such as those resulting from the Defendants’ alleged misconduct, to Indirect Purchaser Class members.

24. I have noted that the above-referenced evidence concerning the pass-through of overcharges to Indirect Purchaser Class members is common to the Indirect Purchaser Class as a whole, since it depends on the market characteristics of the Relevant Class 8 Trucks at issue here and not individual characteristics of Indirect Purchaser Class members.

*The market for Relevant Class 8 Trucks is “workably competitive”*

25. One factor that impacts the amount of an overcharge being passed through to Indirect Purchaser Class members is the competitive landscape of the market for the product being sold (in this case, the market for Relevant Class 8 Trucks). Economic theory indicates that in “workably competitive” product markets such as those for Relevant Class 8 Trucks, “a high percentage of a monopoly overcharge will typically be passed on” to the consumer.<sup>39</sup> This is true even though firms in each of these product markets might engage in different types of strategic behavior or pricing strategies since “market pressures” tend to result in prices approximating marginal costs.<sup>40</sup>

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<sup>37</sup> “After The Worst Year In Three Decades, Here Comes A Boom In American Trucking,” Business Insider, December 11, 2009.

<sup>38</sup> See the discussion in Pindyck and Rubinfeld at p. 33 regarding the elasticity of products with no substitutes.

<sup>39</sup> Harris and Sullivan, pp. 294, 310. An important distinction is made here between the “workably competitive” Relevant Class 8 Truck market and the allegedly anticompetitive market for Eaton Class 8 Transmissions.

<sup>40</sup> Harris and Sullivan at p. 310.

26. Evidence I have reviewed, all of which is common to the Indirect Purchaser Class as a whole, indicates that dealers of Relevant Class 8 Trucks operate in a highly competitive market. For instance, a company profile for Rush Enterprises, which “owns and operates one of the largest network[s] of commercial vehicle dealerships in the US, representing truck and bus manufacturers,” states that the “company faces vigorous competition for customers and for suitable dealership locations.”<sup>41</sup> This report also states that “[i]ntense competition results in competitive pricing and influences the margins of the company.”<sup>42</sup> Similarly, a trade press article covering Rush Enterprises states:

The firm lacks material competitive advantages. Rush competes with a large number of independent dealers, factory-owned dealers, and independent service centers. There is significant competition both within the markets it currently serves and in markets that it may enter.<sup>43</sup>

A company profile for Defendant Navistar International, which “currently has one of the largest dealer networks in the US, Canada, and Mexico,”<sup>44</sup> states the following:

Having a robust network of dealers in [the] North America region gives NIC a significant market penetration capability which helps the company secure a significant competitive advantage over its peers. However, intense competition could result in price discounting and margin pressures throughout the industry and may adversely impact NIC’s ability to increase or maintain the existing prices of its vehicles.<sup>45</sup>

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<sup>41</sup> “Company Profile – Rush Enterprises, Inc.,” MarketLine, November 25, 2013 (hereafter “MarketLine – Rush”), pp. 4, 18.

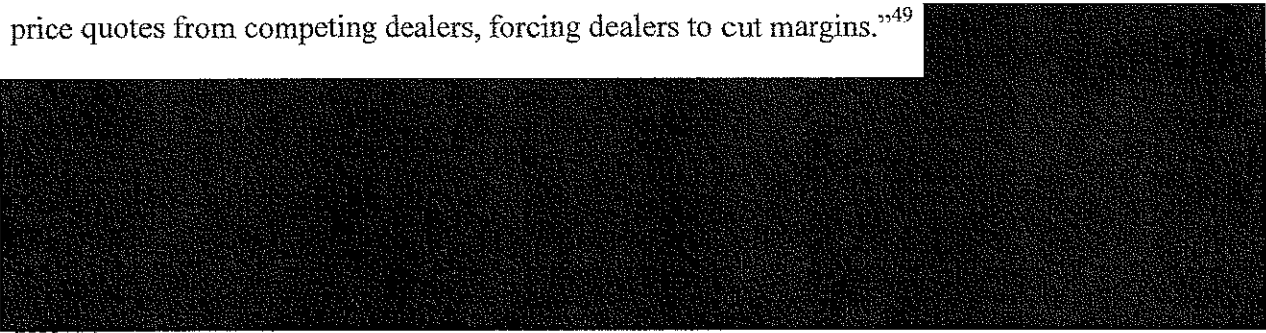
<sup>42</sup> MarketLine – Rush, p. 18.

<sup>43</sup> “Rush Enterprises Could Ride Truck Up-Cycle To New Highs,” Valuentum, September 5, 2011 (hereafter “Valuentum”).

<sup>44</sup> “Company Profile – Navistar International Corporation,” MarketLine, February 12, 2014 (hereafter “MarketLine – Navistar”), p. 22.

<sup>45</sup> MarketLine – Navistar, p. 22.

This same report continues to note that the “class 4-8 truck and bus markets in North America are highly competitive” and that “NIC faces strong competitors.”<sup>46</sup> A market research report covering the Truck Dealers<sup>47</sup> industry in the U.S. notes that the “industry is highly competitive.”<sup>48</sup> This same report notes that “[o]nline pricing services allow customers to request price quotes from competing dealers, forcing dealers to cut margins.”<sup>49</sup>



*Direct Purchasers earned low margins on their sales of Relevant Class 8 Trucks to Indirect Purchaser Class members*

27. Economic theory indicates that firms operating at low profit margins are more likely to pass a price increase through to their customers than firms operating at high profit margins. This is because firms with higher profit margins have a greater capacity to absorb cost increases without raising prices than firms with low margins.<sup>52</sup> As I previously discussed, the market for Relevant Class 8 Trucks is workably competitive. In competitive markets, as profit maximizing firms compete with each other for profits, prices tend to approach marginal costs, which, in turn, tends to yield low margins.

<sup>46</sup> MarketLine – Navistar, p. 26.

<sup>47</sup> According to this report, this “industry is comprised of operators that sell new and used medium- and heavy-duty commercial trucks.” In addition, the industry also covers truck parts and repairs. See Darryle Ulama, “Truck Dealers in the US,” IBISWorld, August 2014 (hereafter “IBIS Report – Truck Dealers”), p. 2.

<sup>48</sup> IBIS Report – Truck Dealers, p. 20.

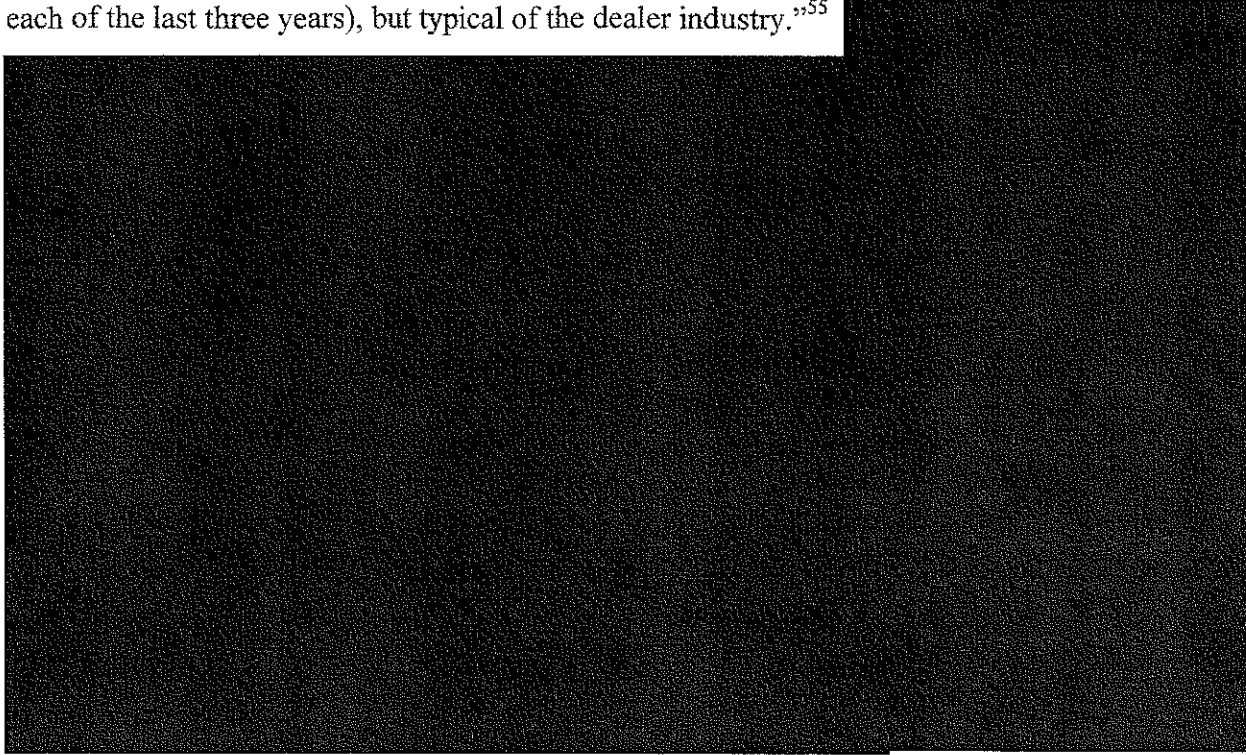
<sup>49</sup> IBIS Report – Truck Dealers, p. 20.

<sup>50</sup> See the “About Triad Freightliner” page of the Triad Freightliner website, available online at <http://triadfreightliner.com/about-us/>.

<sup>51</sup> DTNA00020912.

<sup>52</sup> Harris and Sullivan, pp. 277-298.

28. I have reviewed evidence, common to the Indirect Purchaser Class as a whole, which demonstrates that Direct Purchaser Dealers in this matter operated at low margins during the proposed Class Period. For example, one market research report covering the U.S. truck dealers market states that industry operating profit margins “are expected to stand at 3.7% of revenue in 2014,” up from 0.3 percent in 2009.<sup>53</sup> While this market research report also covers parts and service, evidence indicates that margins for Class 8 truck parts and services tend to be higher than new truck sales. For instance, Marvin Rush, Chairman and CEO of Rush Enterprises, stated the following at a 2013 news conference: “[l]ook at my margins and it becomes very clear that parts and service is way better than truck sales; by six fold.”<sup>54</sup> A trade press article covering Rush Enterprises states that the “firm has tiny company-wide operating margins (less than 3% in each of the last three years), but typical of the dealer industry.”<sup>55</sup>



<sup>53</sup> IBIS Report – Truck Dealers, p. 18.

<sup>54</sup> Sean Kilcarr, “Rush Enterprises pins growth on parts & service,” Fleetowner.com, December 18, 2013.

<sup>55</sup> Valuentum.

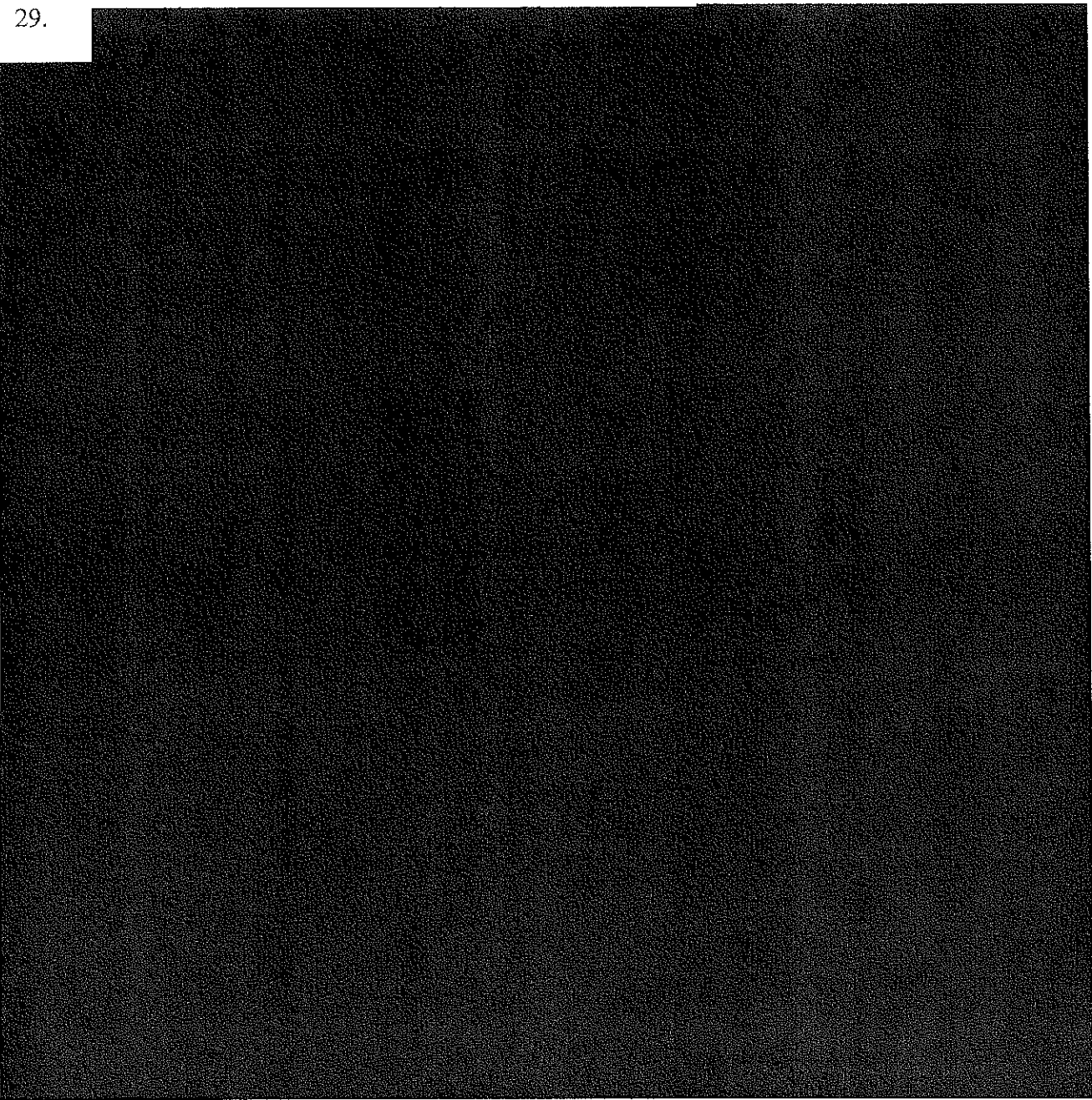
<sup>56</sup> MV0002673.

<sup>57</sup> DTNA00019555, 560.

<sup>58</sup>



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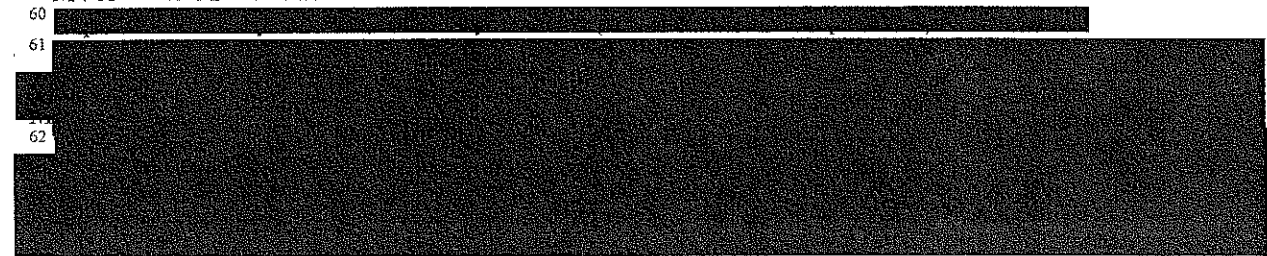


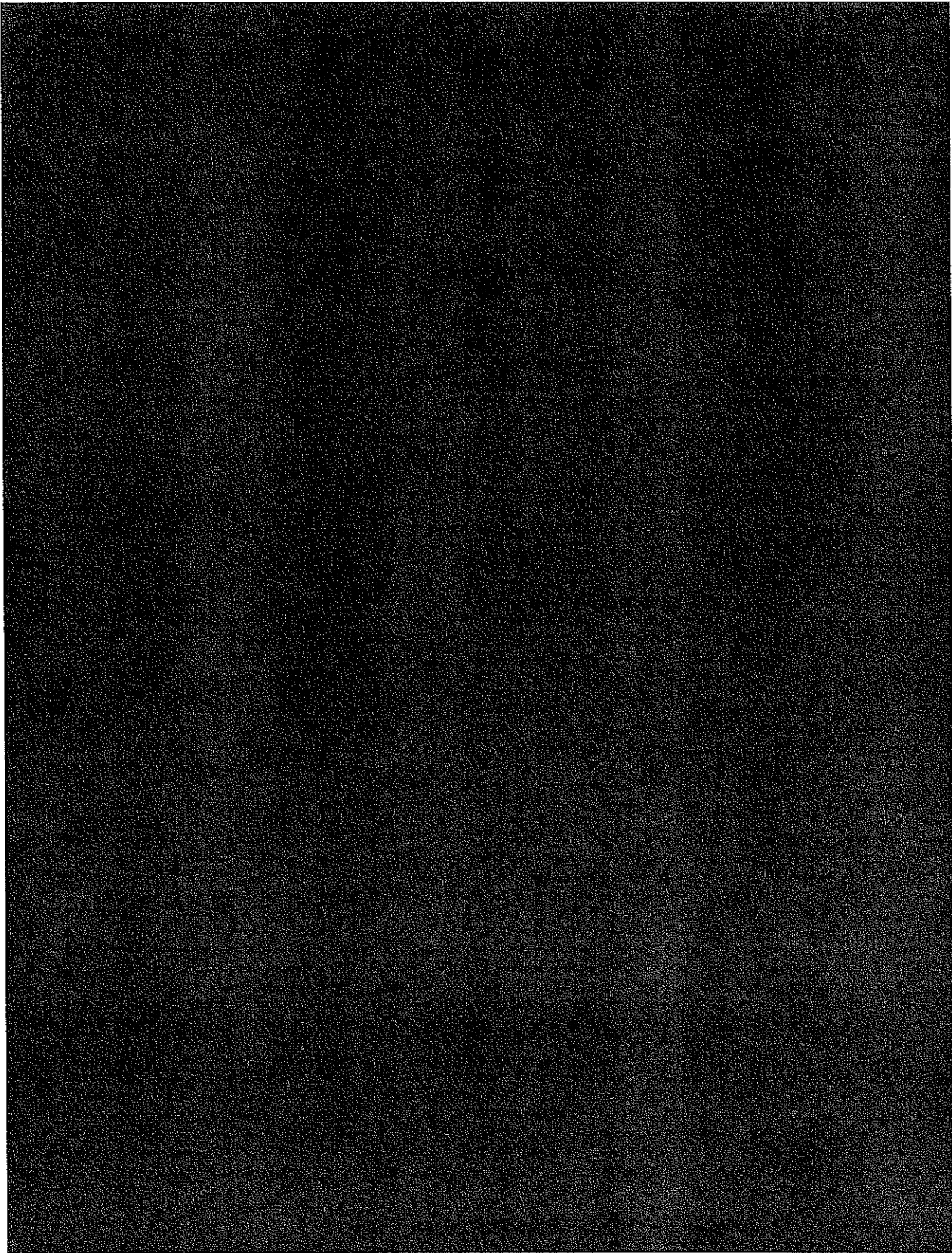
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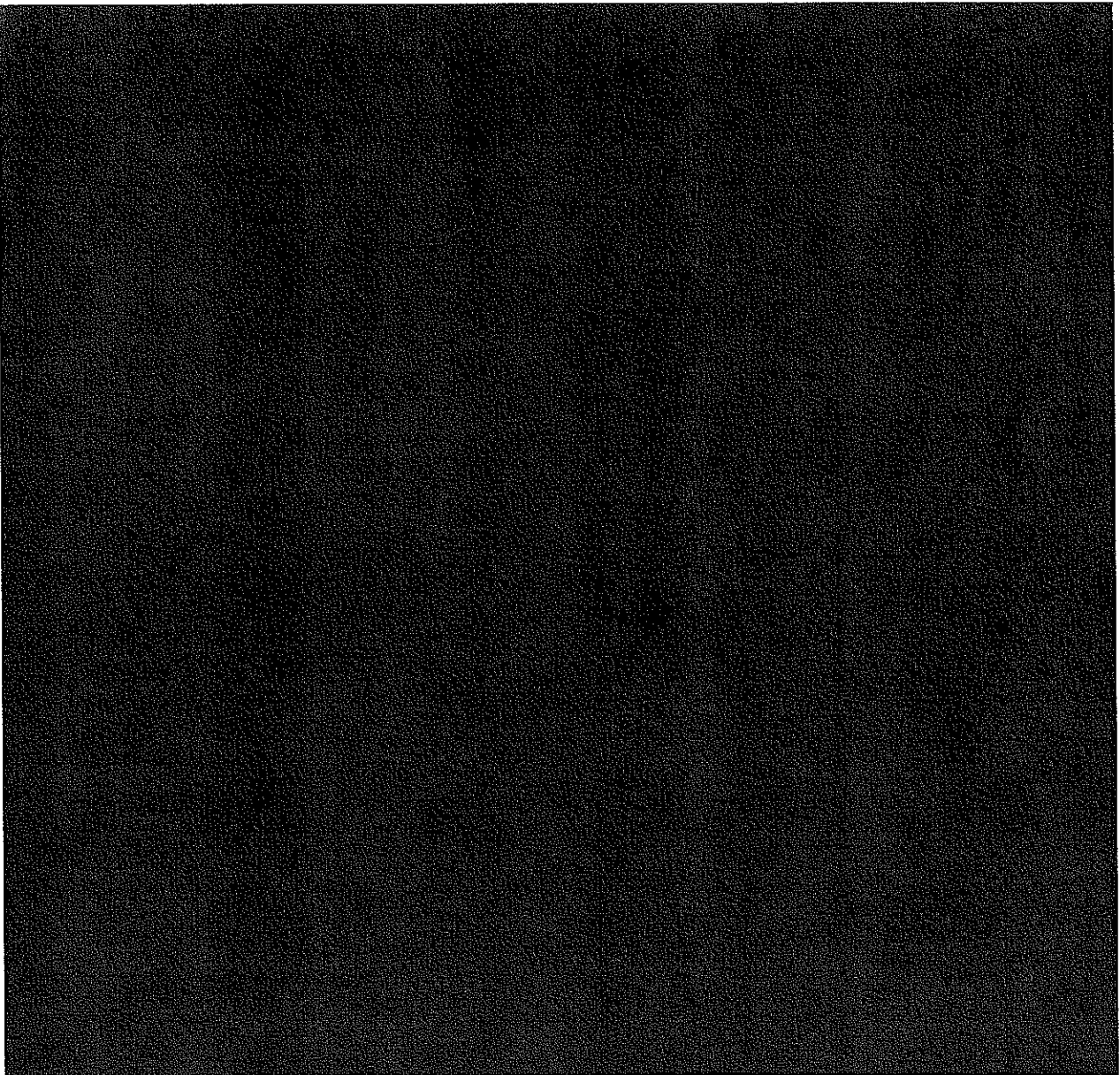
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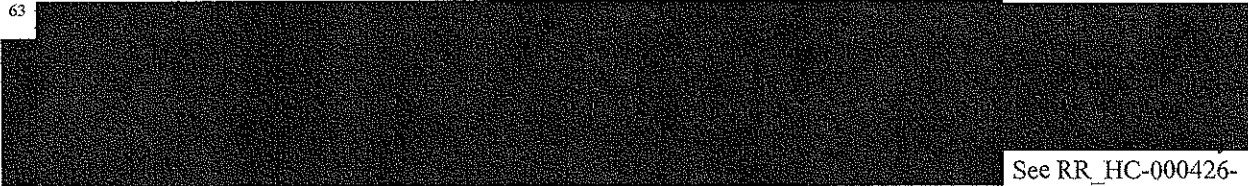








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See RR\_HC-000426-

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65 DTNA00073494; DTNA00073584; DTNA00073591; DTNA00073602-04; DTNA00073606; DTNA00073610; DTNA00073620-21; DTNA00073624; DTNA00073627; DTNA00073632; DTNA00073634; DTNA00073638-39; DTNA00073643-45; DTNA00073648; DTNA00073651; DTNA00073654; DTNA00073661; DTNA00073662-64; DTNA00073673; DTNA00073682; DTNA00073687; DTNA00073693-96; DTNA00073699-700; DTNA00073705; DTNA00073708; DTNA00073712; DTNA00073721; DTNA00073723-24; DTNA00073740-41; DTNA00073745; DTNA00073746; DTNA00073769-770; DTNA00073773-74; DTNA00073778; DTNA00073782-84; DTNA00073786-87; DTNA00073805-06; DTNA00073809-810; DTNA00073826-29; DTNA00073831-32; DTNA00073836; DTNA00073839; DTNA00073843; DTNA00073845; DTNA00073856-59;





34. The analyses above provide further evidence that Direct Purchaser Dealers received very low margins on their sales of Relevant Class 8 Trucks to Indirect Purchaser Class members. As I previously discussed, given these low margins, Direct Purchaser Dealers would have had a very difficult time absorbing all of the cost increases they faced as a result of the alleged misconduct. Economic theory establishes that the low margins, combined with the highly competitive nature of the Relevant Class 8 Truck market is sufficient to establish that a high percentage of the

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DTNA00073863; DTNA00073868; DTNA00074018; DTNA00074038; DTNA00074043; DTNA00074078-79; DTNA00074210; DTNA00074278; DTNA00074284; DTNA00074398; DTNA00074411; DTNA00074451; DTNA00074453; DTNA00074455; DTNA00074458-460; DTNA00074516; DTNA00074686; DTNA00074790; DTNA00074805; DTNA00074820; DTNA00074866; DTNA00075006; DTNA00075171; DTNA00075190; DTNA00075195; DTNA00075211; DTNA00075223; DTNA00075289; DTNA00075340-42; DTNA00075367; DTNA00075610; DTNA00075718; DTNA00075775; DTNA00075850; DTNA00075932; DTNA00075979-982; DTNA00076001; DTNA00076020; DTNA00076044; DTNA00076046; DTNA00076049; DTNA00076111; DTNA00076251; DTNA00076254; DTNA00076280; DTNA00076314; DTNA00076353; DTNA00076411; DTNA00076438; DTNA00076473; DTNA00076498; DTNA00076768; DTNA00076791; DTNA00076855; DTNA00076884; DTNA0007704546; DTNA00077120; DTNA00077326; DTNA00077333; DTNA00077368; DTNA00077391; DTNA00077405-07; DTNA00077437; DTNA00077618; DTNA00077621; DTNA00077623; DTNA00077648; DTNA00077732; DTNA00078169; DTNA00078212; DTNA00078636-38; DTNA00078640; DTNA00078664; DTNA00078782; DTNA00079071; DTNA00079245; DTNA00079247; DTNA00079277; DTNA00079313; DTNA00079441-42; DTNA00079513-15; DTNA00079542; DTNA00079565; DTNA00079570-71; DTNA00079753; DTNA00079755; DTNA00079852; DTNA00079872; DTNA00079999; and DTNA00080243.

<sup>66</sup>

DTNA00117771-792, at 776.

overcharge incurred by Direct Purchaser Dealers would have been passed through to members of the Indirect Purchaser Class.

*Publicly available documents and documents produced as part of this litigation also establish that Direct Purchaser Dealers regularly passed overcharges associated with the alleged misconduct through to Indirect Purchaser Class members*

35. I have reviewed certain evidence, common to the Indirect Purchaser Class as a whole, which establishes that Direct Purchaser Dealers regularly passed cost increases they incurred through to Indirect Purchaser Class members. For instance, on a Q3 2005 earnings call, Rush Enterprise's Marvin Rush stated the following with respect to the company's pricing on new trucks: "[s]o I would tell you that pricing has basically I believe gotten in line with where real true cost increases were over the last year."<sup>67</sup> A market research report on the Truck Dealers market stated that "dealers are expected to pass on price increases to end customers."<sup>68</sup> This same market research report stated the following regarding upstream price increases: "more stringent regulation could encourage upstream manufacturers to increase their prices in an effort to recoup the investments they make to meet fuel efficiency standards. Dealers, in turn, are expected to pass on these price hikes to end customers."<sup>69</sup>

[REDACTED]

Another market research report covering the Medium and Heavy-Duty Truck market in the U.S. notes that "[t]ruck manufacturers generally sell to dealers in the first instance.

<sup>67</sup> "Q3 2005 Rush Enterprises, Inc. Earnings Conference Call - Final," Voxant FD (FAIR DISCLOSURE) WIRE, October 19, 2005, p. 5.

<sup>68</sup> IBIS Report – Truck Dealers, p. 9.

<sup>69</sup> IBIS Report – Truck Dealers, p. 9.

<sup>70</sup> NAV00026548-49.

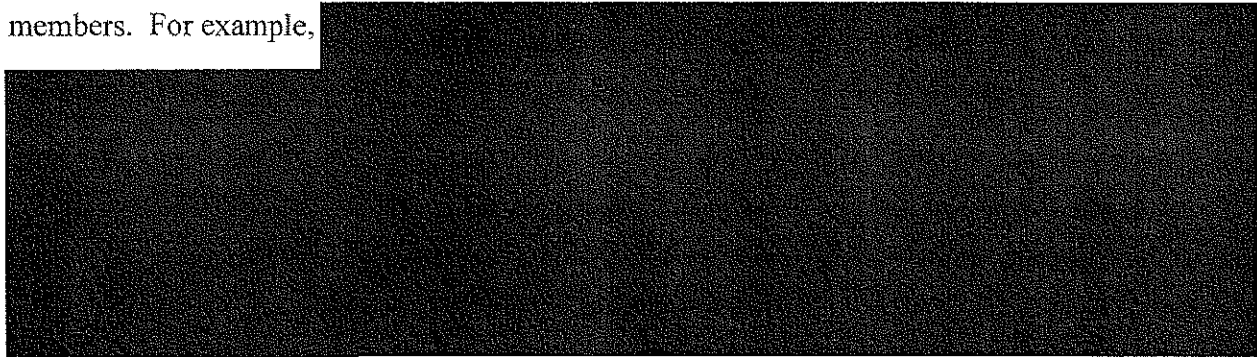
However, pull-through from end-users [...] is expected to be important in this market.”<sup>71</sup> A trade press article regarding the trucking industry notes the following:

The [freight carrying trucking industry] operates on small profit margins and is dominated by small businesses and owner operators. In the long haul trucking segment, non-employers account for 88% of all establishments. The weak bargaining position of an owner-operator makes them the most vulnerable [sic] to increased costs, regardless of the cost origin (steel, fuel, emissions, technology).<sup>72</sup>

Given this evidence, all of which is common to the Indirect Purchaser Class as a whole, I have concluded that at least some portion of the overcharge paid by Direct Purchaser Dealers was in fact passed on to Indirect Purchaser Class members.

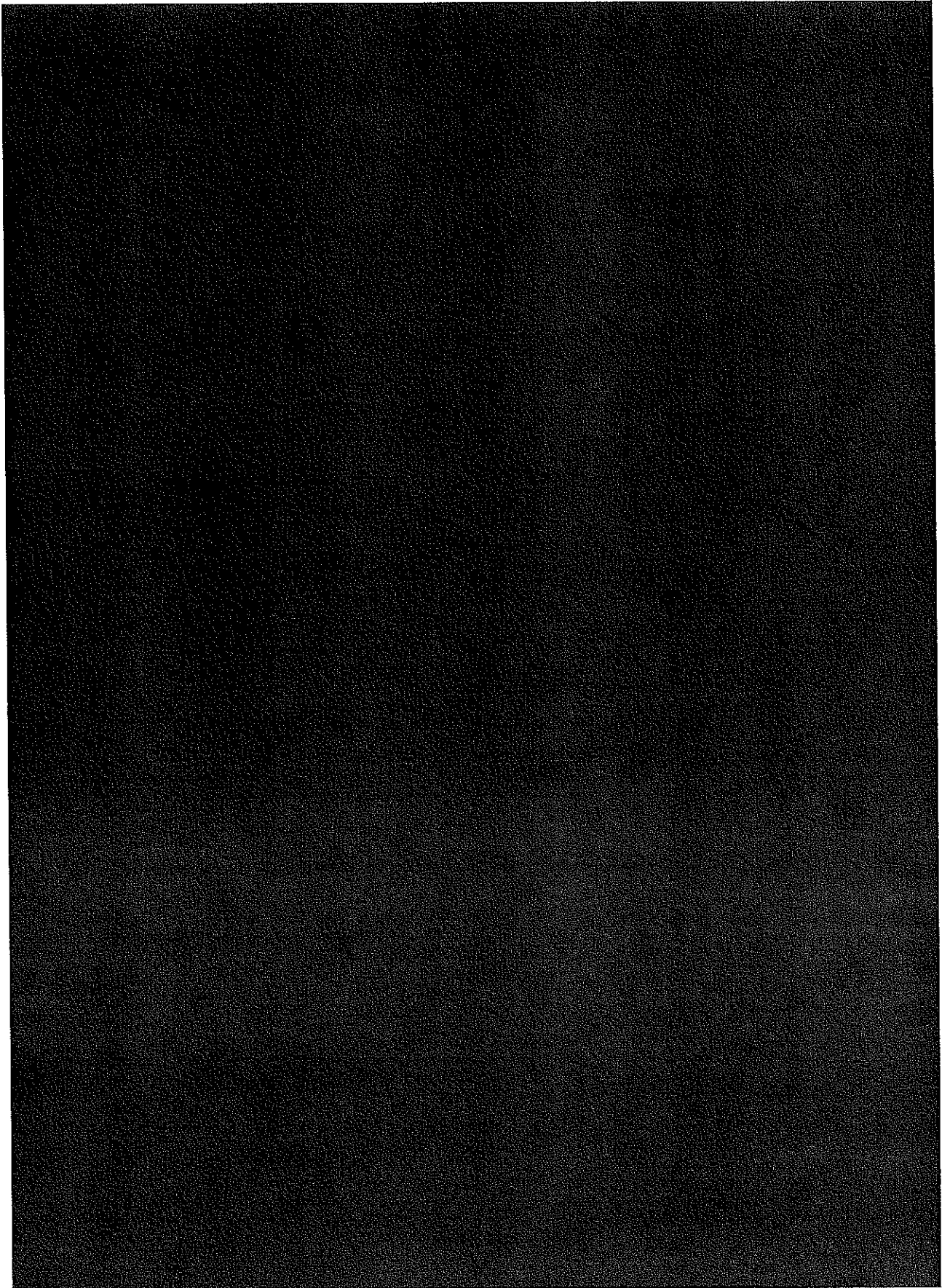
*The Defendants themselves acknowledged that overcharges associated with the alleged misconduct would have been passed through to Indirect Purchaser Class members*

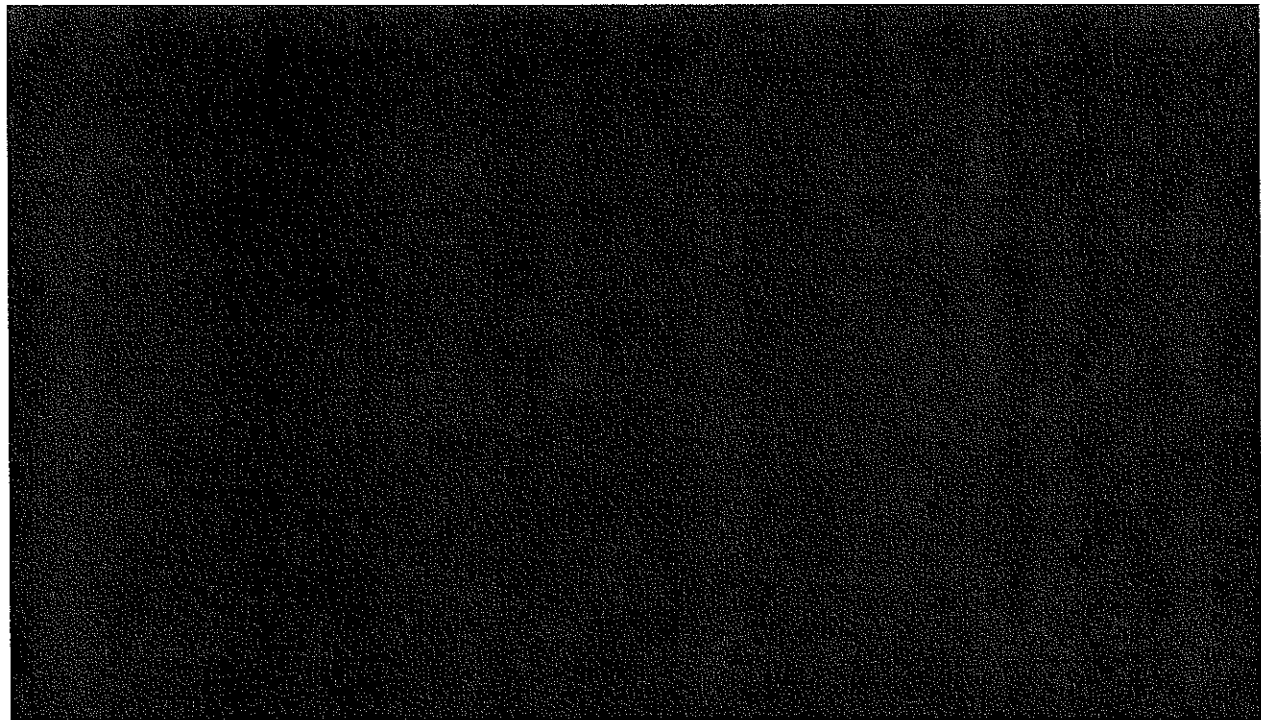
36. I have reviewed evidence, common to the Indirect Purchaser Class as a whole, in which the Defendants themselves acknowledged that price increases, such as the overcharges associated with the alleged misconduct, would have been passed through to Indirect Purchaser Class members. For example,



<sup>71</sup> “MarketLine Industry Profile – Medium & Heavy Trucks in the United States,” MarketLine, May 2014 (hereafter “MarketLine – Medium & Heavy Duty Trucks”), p. 16.

<sup>72</sup> George Van Horn, “Trucking Takes a Detour,” IBISWorld, September 16, 2008.





*Regression analysis discussed below is also further evidence of the pass on of overcharges to Indirect Purchaser Class members*

37. I discuss below a formulaic method with which I will be able to determine the extent to which higher prices paid by Direct Purchaser Dealers were passed on to Indirect Purchaser Class members. This method is based on a multiple regression methodology to measure the extent to which higher prices for Eaton Class 8 Transmissions were passed on to Indirect Purchaser Class members. This evidence is common to the Indirect Purchaser Class.

38. The evidence and analysis discussed above, all of which is common to the Indirect Purchaser Class as a whole and not specific to its members, is sufficient to establish that all members of the Indirect Purchaser Class would have been injured as a result of the alleged misconduct in that they would have paid higher prices for the Relevant Class 8 Trucks they

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<sup>77</sup> EATON-00438305-06.

<sup>78</sup> EATON-00438305-06.

<sup>79</sup>

purchased. This is true because at least some portion of the Direct Purchaser overcharge paid by Direct Purchaser Dealers would have been passed through to Indirect Purchaser Class members.

### **III. Class-wide Damages May Be Measured Using Standard, Formulaic Methods**

39. As I previously discussed, I have been asked if there is a reliable and standard method available with which to measure the overcharge and damages paid by Indirect Purchaser Class members as a result of the alleged misconduct on a class-wide basis without resorting to individualized inquiry. Below I discuss a sound, commonly used methodology based on multiple regression that would allow me to perform such an analysis.

*Common evidence in the form of multiple regression analysis can be used to measure the amount of the overcharge passed on by Direct Purchaser Dealers to Indirect Purchaser Class members*

40. I discussed in the Lamb Direct Purchaser Expert Report a methodology known as multiple regression analysis for measuring the overcharge paid by Direct Purchasers of Eaton Class 8 Transmissions.<sup>80</sup> Using evidence common to the Indirect Purchaser Class without individual inquiry, I have developed an analysis of damages suffered by Indirect Purchaser Class members that measures the amount of the Direct Purchaser overcharge which was passed on from Direct Purchaser Dealers to Indirect Purchaser Class members. Specifically, in calculating the amount of the overcharge that was passed on from Direct Purchaser Dealers to Indirect Purchaser Class members, I have utilized multiple regression analysis ("Pass-On Regression"). Below, I explain why a multiple regression analysis is also useful here to measure the degree of artificial price inflation paid by Indirect Purchaser Class members using all the appropriate and available data on the prices paid by Direct Purchaser Dealers and Indirect Purchaser Class

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<sup>80</sup> Lamb Direct Purchaser Expert Report at ¶¶191-212.

members. This method is common to the Indirect Purchaser Class as a whole. The use of multiple regression analysis is an accepted method for measuring the degree of pass-through in the field of antitrust economics.<sup>81</sup>

*The dependent variable in the Pass-On Regression is the price paid for Relevant Class 8 Trucks*

41. In the Pass-On Regression, the dependent variable is the price paid by Indirect Purchaser Class members to Direct Purchaser Dealers for Relevant Class 8 Trucks.<sup>82</sup> In order to estimate pass-through by Direct Purchaser Dealers to Indirect Purchaser Class members, I have examined transaction-level data provided by certain dealers containing sales information on Relevant Class 8 Trucks during the proposed Class Period. As part of this litigation, I received transaction-level

Should any additional information

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<sup>81</sup> “[T]his approach makes use of historical data on prices, input costs, and other supply and demand factors affecting price to estimate the degree of pass-on. From an econometric perspective, this is a reduced form approach.” See Theon van Dijk and Frank Verboven, “Quantification of Damages,” in *Three Issues in Competition Law and Policy*, ABA Section of Antitrust Law 2008, pp. 2331-2348.

<sup>82</sup> To enable the regression results to be converted into pass-through rates, the dependent variable is measured in natural logs.

regarding prices charged by dealers for Relevant Class 8 Trucks become available to me in this matter, I reserve the right to revise my analysis to incorporate this new information at the appropriate stage of this litigation.

*Independent variables in the Pass-On Regression account for factors affecting price*

42. In the Pass-On Regression, the regressors include variables that would affect the prices of Relevant Class 8 Trucks. These include variables to account for differences in demand for Relevant Class 8 Trucks (“demand variable”) and variables that measure the cost of supplying Relevant Class 8 Trucks (“supply variable”). Multiple regression analysis also allows me to control for additional factors that might influence prices for Relevant Class 8 Trucks, such as customer characteristics and the product purchased.

Demand Variables

43. Demand for Relevant Class 8 Trucks is determined by a number of related macroeconomic factors. One primary economic indicator that determines demand for Relevant Class 8 Trucks is the level of real gross domestic product (“GDP”). This variable measures the level of real aggregate output in the U.S. Higher levels of GDP indicate higher levels of economic activity, which typically is a result of higher demand in industries, such as manufacturing and construction. Increased economic activity in the manufacturing industry increases the demand for transportation of the goods manufactured, which will in turn result in increased demand for trucks with Class 8 Linehaul Transmissions, and increased economic activity in the construction industry increases the demand for trucks that are used in construction



sites, e.g., trucks with Class 8 Performance Transmissions.<sup>86</sup> The GDP data series that I am using is a publicly available data series published quarterly by the Bureau of Economic Analysis.<sup>87</sup>

#### Supply Variables

44. The supply of Relevant Class 8 Trucks with respect to Direct Purchaser Dealers is a function of the price that dealers pay to the OEMs. [REDACTED]

45. In order to identify the effect of changes in the invoice price on the Relevant Class 8 Trucks prices (i.e., the extent to which invoice price changes are reflected in the end-customer purchasing price), I utilized the invoice price field in my Pass-On Regression model. The regression coefficient on the invoice price field measures the proportion of the overcharge that has been passed through to end customers.

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<sup>86</sup> As I discussed in the Lamb Direct Purchaser Expert Report, I have reviewed evidence which is consistent with this assessment. [REDACTED]

Furthermore, a market research report covering the Medium & Heavy-Duty Truck market in the United States states that the “medium and heavy truck market is hyper-cyclical in most countries, with demand being extremely sensitive to overall economic conditions.” See MarketLine – Medium & Heavy Duty Trucks, p. 18.

<sup>87</sup> See the “Real Gross Domestic Product, 3 Decimal (GDPC96)” page of the Federal Reserve Bank of St. Louis webpage, available online at <http://research.stlouisfed.org/fred2/series/GDPC96/downloaddata>.

<sup>88</sup> See, for example, DTNA\_D\_00000002-3; NAV00078074; and PACCAR15646. [REDACTED]

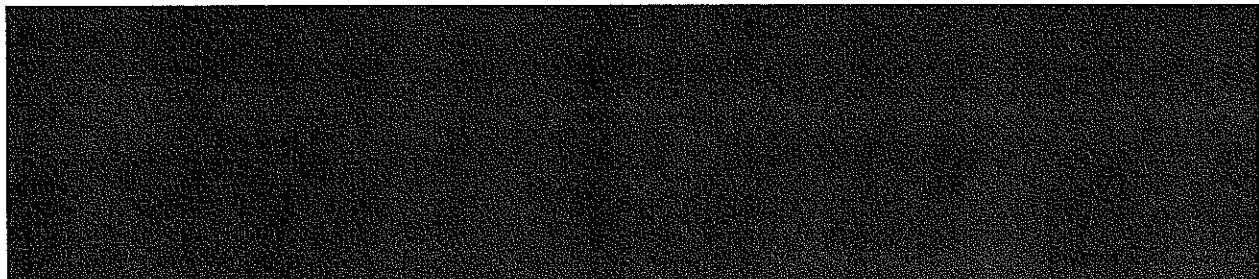
Indicator Variables

46. In addition to the variables discussed above, I have included indicator variables in the Pass-On Regression to capture any differences in pricing related to various factors affecting the product. In order to account for the differences in Relevant Class 8 Truck prices, I utilized indicator variables for each Relevant Class 8 Truck model that I observe in the regression dataset.<sup>89</sup> In so doing, I am able to measure the regression coefficient of the invoice price field through the relationship between changes in invoice prices and changes in sales prices for the same model over time. Therefore, these indicator variables in my Pass-On Regression model control for differences in invoice prices due to differences in truck model.

*The results of the Pass-On Regression confirm that some portion of the overcharge that resulted from the alleged misconduct was passed through to Indirect Purchaser Class members*

47. In order to measure the amount of the overcharge resulting from the alleged misconduct that was passed through to Indirect Purchaser Class members, I performed a multiple regression analysis as described above.<sup>90</sup> The coefficient on the invoice price variable measures the proportion of the overcharge that has been passed through to Indirect Purchaser Class members.

48. Table 4 below summarizes the results of the Pass-On Regression. Using a dataset of 1,833 observations with the invoice prices and sales prices provided by [REDACTED] the estimated pass-on rate of changes in invoice prices to sales price is 94.2 percent, indicating that invoice price changes were largely passed on to members of the Indirect Purchaser Class.



The statistical properties of this multiple regression model indicate that the model explains a large share of the variation in the prices of Relevant Class 8 Trucks; the R-squared, which measures the goodness of fit in the statistical model, is 0.83. This means that the multiple regression analysis explains nearly 83 percent of the variation in prices paid for Relevant Class 8 Trucks. Further, the F-Statistic, a statistic used in a statistical test that assesses the overall significance of the variables in this multiple regression analysis, is 930,555, indicating that the results are statistically significant at the one percent (0.01) level. This means that there is less than a one percent chance that the statistical results are due to chance alone.

**Table 4**  
**Dealer-to-End Customer Indirect Purchaser Regression**

<u>Parameters</u>	<u>Coefficient</u>	<u>Std. Error</u>	<u>t-Value</u>
Invoice Price	0.942	0.022	43.20
Real Gross Domestic Product	0.368	0.106	3.47
R <sup>2</sup> : 0.83			
F-Statistic: 930,555			
Number of Observations: 1,833			

Note: Estimates for the intercept and indicator variables for truck models are not shown in the table.

*Damages paid by Indirect Purchaser Class members*

49. In the Lamb Direct Purchaser Expert Report, I estimated the dollar amount of damages suffered by Direct Purchasers (including Direct Purchaser Dealers) in this matter. I estimated that the damages paid by Direct Purchaser Class members during Damages Period 1 total \$249,250,055.<sup>91</sup> Additionally, I estimated that damages paid by Direct Purchaser Class members during Damages Period 2 total \$398,437,880.<sup>92</sup> In order to estimate the amount of damages that were passed on to members of the Indirect Purchaser Class, I first identify Direct Purchaser damages associated with Direct Purchasers Dealers that resold those Relevant Class 8 Trucks

<sup>91</sup> Lamb Direct Purchaser Expert Report at ¶¶210, Table 4.

<sup>92</sup> Lamb Direct Purchaser Expert Report at ¶¶212, Table 5.

that they purchased from the OEM Defendants to members of the Indirect Purchaser Class. In order to do this, I excluded the damages suffered by the National Accounts and OEM subsidiary dealers from the total amount of damages suffered by Direct Purchaser Dealers. Doing so yields damages paid by Direct Purchaser Dealers during Damages Period 1 of \$190,339,257, and damages paid by Direct Purchaser Dealers during Damages Period 2 of \$309,265,365.

50. The second step in calculating damages suffered by members of the Indirect Purchaser Class is multiplying Direct Purchaser damages, net of National Accounts and OEM subsidiary dealers (Direct Purchaser Dealer damages), by 94.2 percent, which is the pass-on rate resulting from the Pass-On Regression. As shown in Table 5 below, this yields an estimate of Indirect Purchaser damages of \$179,214,338 for Damages Period 1, and \$291,189,472 for Damages Period 2.

**Table 5**  
**Summary of Total Indirect Purchaser Damages**

	Damages Period 1		Damages Period 2	
Direct Purchaser Dealer Damages	\$	190,339,257	\$	309,265,365
Pass-On Rate		94.2%		94.2%
Total Indirect Purchaser Damages	\$	179,214,338	\$	291,189,472

51. The final step in measuring damages suffered by Indirect Purchaser Class members is to allocate the Indirect Purchaser damages calculated above across the Indirect Purchaser States. Complete information on the geographic location of purchases of Relevant Class 8 Trucks by Indirect Purchaser Class members has not been provided to me. However, the available OEM Defendant transaction-level data contains information on the locations of the Direct Purchaser Dealers of Relevant Class 8 Trucks contained in those data. This information serves as a reasonable proxy for the locations of the members of the Indirect Purchaser Class for the purposes of allocating damages to each of the Indirect Purchaser States. These OEM Defendant

data indicate that approximately 31.7 percent of purchases of Relevant Class 8 Trucks by Indirect Purchaser Class members were made in Indirect Purchaser States.<sup>93</sup> As shown in Table 6 below, I have estimated total damages suffered by the Indirect Purchaser Class to be \$56,862,766 during Damages Period 1, and \$92,391,262 during Damages Period 2.

**Table 6**  
**Summary of Indirect Purchaser Class Damages**

	Damages Period 1		Damages Period 2	
Total Indirect Purchaser Damages	\$	179,214,338	\$	291,189,472
Indirect Purchaser State Share		31.7%		31.7%
Indirect Purchaser Class Damages	\$	56,862,766	\$	92,391,262


52. As I previously discussed, complete information on the geographic location of purchases of Relevant Class 8 Trucks by Indirect Purchaser Class members has not been provided to me. However, it is my opinion that Indirect Purchaser Class members are ascertainable. [REDACTED]

[REDACTED] Given this available information, the identity of Indirect Purchaser Class members that are not ascertainable from the [REDACTED] could be ascertained in a number of ways. For instance, since the above referenced [REDACTED]

[REDACTED] vehicle registration data from each Indirect Purchaser State's Departments of

<sup>93</sup> Should more complete information on the geographic location of Indirect Purchaser Class members be made available to me at a later time, I reserve the right to revise my analysis based on this new information at the appropriate stage of litigation.

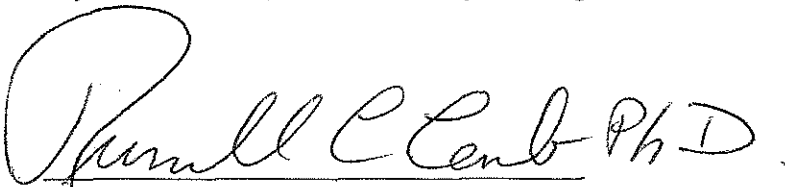
Transportation could be used to identify those Indirect Purchaser Class members who purchased Relevant Class 8 Trucks indirectly from the Defendants. Alternatively, this VIN information could be used to gain access to the sales records of Relevant Class 8 Trucks directly from the



#### IV. Conclusions

53. Based on my analyses and research into the market for Relevant Class 8 Trucks, including the documents and materials I have reviewed to date, as well as my training and experience in economics, I have concluded that class-wide evidence is available to demonstrate that all, or nearly all, Indirect Purchaser Class members would have been injured in that they would have had some portion of the artificially-inflated prices paid by Direct Purchasers that resulted from the alleged anticompetitive conduct passed through to them. I have also concluded that multiple regression analysis can be used to measure the amount of the overcharge paid by Direct Purchasers that was passed through to Indirect Purchaser Class members. The results of my Pass-On Regression yielded a pass-on rate of 94.2 percent. Based on this pass-on rate, I have estimated total damages suffered by the Indirect Purchaser Class to be \$56,862,766 during Damages Period 1, and \$92,391,262 during Damages Period 2.

54. I declare under penalty of perjury that the foregoing is true and correct. Executed this 3rd day of November, 2014, at Arlington, Virginia.

A handwritten signature in black ink, reading "Russell L. Lamb Ph.D.", written over a horizontal line.

Russell L. Lamb, Ph. D.